

Remarks/Arguments

Applicants have received and carefully reviewed the Office Action of the Examiner mailed June 9, 2003. Claims 1-10 stand rejected, and claims 11-20 are newly presented. Reconsideration and reexamination are respectfully requested.

Applicants have noted certain informalities in the original claims 1-10, in particular related to the multiple dependency of the claims. In the interests of moving the application to issue, some of the above amendments are intended to remove any such informalities.

In paragraph 1 of the Office Action, the Examiner noted that the proposed drawing correction and/or the proposed substitute sheets of drawings filed on 9/29/00 were missing. In a telephonic interview on August 15, 2003, Applicants and the Examiner agreed that Applicants would submit an abstract as well as copies of the substitute drawings from the international application. These items are attached for the Examiner's review. No new matter has been added.

In paragraph 3 of the Office Action, the Examiner rejected claims 1-3, 6 and 8 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,595,352 to McNair. After careful review of the cited reference, and in light of the above amendments, Applicants respectfully disagree.

The Examiner states that:

McNair et al. further disclose the signals being transmitted within a prescribed range (54), wherein the signals are transmitted at at least two different frequencies within the frequency range (54), at least one of these frequencies being outside the partial frequency range (55) of the frequency range (54). Which reads on the above limitation with broadest reasonable interpretation, i.e., channels 1 and 2 are defined in one group or range and channel 3 is another frequency group or range.

(see, Office Action at paragraph 3, on pages 2-3). Applicants have amended claim 1 to recite:

1. A management system for a building or for one or more rooms in a building, having at least one control center (10) and at least two components (13, 14, 15, 16) connected to the control center (10) by radio, the control center (10) receiving signals from the components (11) or

transmitting signals to the components (13, 14, 15, 16), and the signals being transmitted within a prescribed range (54), wherein the signals are transmitted at at least two different frequencies within the frequency range (54), at least one of these frequencies being outside a defined partial frequency range (55) of the frequency range (54), wherein the defined partial frequency range (55) of the frequency range (54) is defined as including a portion of the frequency range (54) that is more heavily used than other portions of the frequency range (54) by devices in or near the building.

In particular, Applicants have amended claim 1 to recite that the defined partial frequency range of the frequency range is defined as including a portion of the frequency range that is more heavily used than other portions of the frequency range by devices in or near the building. These amendments are supported by the present specification at, for example, page 2, lines 1-13, and page 7, line 6 to page 8, line 2.

The particular definition for the partial frequency range recited in claim 1 does not appear to be disclosed or suggested by McNair et al. That is, McNair et al. does not appear to suggest transmitting the signals at at least two different frequencies within the frequency range (54) wherein at least one of these frequencies is outside a defined partial frequency range (55) of the frequency range (54), wherein the defined partial frequency range of the frequency range is defined as including a portion of the frequency range that is more heavily used than other portions of the frequency range by devices in or near the building. As such, claim 1 is believed to be clearly patentable over McNair et al. For similar and other reasons, dependent claims 2-3, 6 and 8, are also believed to be clearly patentable over McNair et al.

In paragraph 5 of the Office Action, the Examiner rejected claims 4-5, 7 and 9-10 under 35 U.S.C. §103(a) as being unpatentable over McNair et al. in view of U.S. Patent No. 5,898,230 to Bartel et al. After careful review of the cited references, Applicants respectfully disagree. As noted above, McNair et al. does not appear to suggest transmitting the signals at at least two different frequencies within the frequency range (54) wherein at least one of these frequencies is outside a defined partial frequency range (55) of the frequency range (54), wherein the defined partial frequency range of the frequency range is defined as including a portion of the frequency range that is more heavily used than other portions of the frequency range by devices in or near the building.

Bartel et al. does not appear to add anything to McNair et al. in this regard. Indeed, Bartel et al. states:

The invention is based upon our discovery that the "cross talk" and like interference resulting from the operation of a transmitter for a nearby similar vehicle with a similar communication frequency can be completely avoided when the remote operation of the vehicle is effected in a spread-spectrum frequency hopping mode.

(Emphasis Added)(Bartel et al. at column 2 line 63 to column 3 line 1). Thus, Bartel et al. would suggest avoiding interference with other devices operating near a communication system by repeatedly changing, during operation, the particular frequency at which communication is performed, rather than transmitting the signals at at least two different frequencies within the frequency range (54) wherein at least one of these frequencies is outside a defined partial frequency range (55) of the frequency range (54), wherein the defined partial frequency range of the frequency range is defined as including a portion of the frequency range that is more heavily used than other portions of the frequency range by devices in or near the building. As such, Bartel et al. would appear to actually teach away from the present invention. For these and other reasons, claims 4-5, 7 and 9-10 are believed to be clearly patentable over McNair et al. in view of Bartel et al.

Applicants have added newly presented claims 11-20. Newly presented independent claim 11 recites a method of communicating comprising identifying a desired frequency range within which communication is to occur, identifying a subrange in the frequency range which is more heavily used than other parts of the frequency range, and sending a set of data packets by the steps of sending at least selected data packets using a first frequency within the subrange, and sending at least selected data packets using a second frequency that is not in the subrange. For at least the reasons given above with respect to claim 1, claim 11 is believed to be in condition for allowance.

Newly presented claim 12 recites a method as in claim 11 wherein the step of sending the set of data packets is performed using a wireless transmission. Newly presented claim 13 recites a method as in claim 12 wherein the desired frequency range is the ISM frequency range. Newly presented claim 14 recites a method as in claim 13 further comprising wirelessly sending at least selected data packets using a third

frequency that is also not in the subrange, wherein the second frequency is below the subrange and the third frequency is above the subrange.

Newly presented independent claim 15 recites a method of operating a building management system comprising identifying a desired frequency range within which communication is to occur, identifying a subrange in the frequency range which is more heavily used than other parts of the frequency range, and sending a set of data packets by sending at least selected data packets using a first frequency in the subrange and sending at least selected data packets using a second frequency that is not in the subrange.

Newly presented claim 16 recites a method as in claim 15 further comprising providing a number of wireless components for sending data to a building management center, and placing the wireless components at desired locations within a building. Newly presented claim 17 recites a method as in claim 16 wherein the step of identifying the subrange includes determining what other wireless devices are in the vicinity of the building.

Newly presented claim 18 recites a method as in claim 17 wherein a number of the wireless components are devices for monitoring environmental conditions within an area of the building. Newly presented claim 19 recites a method as in claim 17 further comprising wirelessly sending at least selected data packets using a third frequency that is not in the subrange, wherein the second frequency is below the subrange and the third frequency is above the subrange. Newly presented claim 20 recites a method as in claim 17 wherein the desired frequency range includes a part of the ISM frequency range.

In view of the foregoing, all pending claims 1-20 are believed to be in condition for allowance. Reexamination and reconsideration are respectfully requested. If the Examiner would like to discuss the application or its examination in any way, please call the undersigned attorney at (612) 677-9050.

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Respectfully Submitted,

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By their attorney:

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